

CLAIMS

WHAT IS CLAIMED IS:

1. A radio terminal equipment comprising:
a receiving means for receiving in parallel a plurality
5 of radio waves which may reach the receiving means at deviating
points in time, through a radio transmission line;
a channel controlling means for processing any radio
wave of said plurality of radio waves received by said
receiving means according to a channel controlling procedure;
10 and
a transmission means for transmitting to said radio
transmission line a transmission wave signifying a response
to said radio wave which is an object of said processing by
said channel controlling means; wherein
15 said channel controlling means is given in advance a
period which accordingly makes both the said processing and
processing to be done to said transmission wave(s) by a radio
station connected through said radio transmission line have
lengths of time needed for the processes suitable for said
20 channel controlling and which is also suitable for a
transmission system in said radio transmission line, and makes
a radio wave received by said receiving means during said
period the object of said processing.
2. A radio terminal equipment as claimed in Claim 1, wherein
25 said channel controlling means has a period given in advance
relative to a point in time at which a specific one of said
plurality of radio waves is received by said receiving means.
3. A radio terminal equipment as claimed in Claim 1,
wherein:
30 of said plurality of radio waves, said receiving means
individually obtains a point in time received and measures the
transmission quality or the field strength level;
said channel controlling means obtains a point in time,
at which said transmission wave is to be transmitted, which
35 is relative to a point in time equal to the point in time
determined as a result of averaging the sum of products of said
point in time and said transmission quality or said field

strength level obtained or measured by said receiving means during said period given in advance; and

5 said transmission means transmits said transmission wave(s) at said point in time obtained by said channel controlling means.

4. A radio terminal equipment as claimed in Claim 2, wherein:

10 of said plurality of radio waves, said receiving means individually obtains a point in time received and measures the transmission quality or the field strength level;

15 said channel controlling means obtains a point in time, at which said transmission wave is to be transmitted, which is relative to a point in time equal to the point in time determined as a result of averaging the sum of products of said point in time and said transmission quality or said field strength level obtained or measured by said receiving means during said period given in advance; and

20 said transmission means transmits said transmission wave(s) at said point in time obtained by said channel controlling means.

5. A radio terminal equipment as claimed in Claim 2, wherein said plurality of radio waves reach said radio terminal equipment sequentially and separately in a cycle having an equal nominal value, and

25 said period is given as a subset of periods in which said radio waves can be received by said receiving means, and which is subsequent to said points in time at which said plurality of radio waves individually reach the receiving means during the period in said cycle which precedes said period given as the subset of periods.

30 6. A radio terminal equipment as claimed in Claim 3, wherein said plurality of radio waves reach said radio terminal equipment sequentially and separately in a cycle having an equal nominal value, and

35 said period is given as a subset of periods in which said radio waves can be received by said receiving means, and which is subsequent to said points in time at which said plurality

of radio waves individually reach the receiving means during the period in said cycle which precedes said period given as the subset of periods.

7. A radio terminal equipment as claimed in Claim 4, wherein said plurality of radio waves reach said radio terminal equipment sequentially and separately in a cycle having an equal nominal value, and

said period is given as a subset of periods in which said radio waves can be received by said receiving means, and which is subsequent to said points in time at which said plurality of radio waves individually reach the receiving means during the period in said cycle which precedes said period given as the subset of periods.

8. A radio terminal equipment as claimed in Claim 2, wherein said plurality of radio waves reach said radio terminal equipment individually and sequentially in a common cycle having said equal nominal value, and

said period is a subset of periods from the earliest point in time, at which any of said plurality of radio waves reach the receiving means during the period in said cycle which precedes said period given as the subset of periods, to the latest point in time at which any of a following said plurality of radio waves reach the receiving means.

9. A radio terminal equipment as claimed in Claim 3, wherein said plurality of radio waves reach said radio terminal equipment individually and sequentially in a common cycle having said equal nominal value, and

said period is a subset of periods from the earliest point in time, at which any of said plurality of radio waves reach the receiving means during the period in said cycle which precedes said period given as the subset of periods, to the latest point in time at which any of a following said plurality of radio waves reach the receiving means.

10. A radio terminal equipment as claimed in Claim 4, wherein said plurality of radio waves reach said radio terminal equipment individually and sequentially in a common cycle having said equal nominal value, and

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said period is a subset of periods from the earliest point in time, at which any of said plurality of radio waves reach the receiving means during the period in said cycle which precedes said period given as the subset of periods, to the latest point in time at which any of a following said plurality of radio waves reach the receiving means.

11. A radio terminal equipment as claimed in Claim 1, wherein said channel controlling means obtains lengths of time needed for both the processes to be done on said radio waves received by said receiving means according to said channel controlling procedure and to be done on responses transmitted by said transmission means under the procedure of said process, wherein the process is done by said radio station connected through said radio transmission line, and processes one or more of said radio waves received during a period where said lengths of time needed for the processes are suitable for the system of said channel control.

12. A radio terminal equipment as claimed in Claim 2, wherein said channel controlling means obtains lengths of time needed for both the processes to be done on said radio waves received by said receiving means according to said channel controlling procedure and to be done on responses transmitted by said transmission means under the procedure of said process, wherein the process is done by said radio station connected through said radio transmission line, and processes one or more of said radio waves received during a period where said lengths of time needed for the processes are suitable for the system of said channel control.

13. A radio terminal equipment as claimed in Claim 11, wherein both or either of said lengths of time needed for the process(es) to be done on said radio wave(s) received by said receiving means and/or said process done by said radio station connected through said radio transmission line to be done on said response transmitted by said transmission means under said procedure of process vary in accordance with an event(s) which can be identified by said channel controlling means in the process of said channel control, and

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said channel controlling means obtains both or either of said length(s) of time needed in accordance with said event identified under said channel controlling procedure.

14. A radio terminal equipment as claimed in Claim 12, wherein both or either of said lengths of time needed for the process (es) to be done on said radio wave(s) received by said receiving means and/or said process done by said radio station connected through said radio transmission line to be done on said response transmitted by said transmission means under said procedure of process vary in accordance with an event(s) which can be identified by said channel controlling means in the process of said channel control, and

said channel controlling means obtains both or either of said length(s) of time needed in accordance with said event identified under said channel controlling procedure.

15. A radio terminal equipment as claimed in Claim 11, wherein said channel controlling means obtains said length(s) of time needed for the process (es) to be done on said radio wave received by said receiving means under said channel controlling procedure with the level of accuracy which allows both or either a fall in the transmission rate of said radio transmission line and/or said deviation of said radio wave(s).

16. A radio terminal equipment as claimed in Claim 12, wherein said channel controlling means obtains said length(s) of time needed for the process (es) to be done on said radio wave received by said receiving means under said channel controlling procedure with the level of accuracy which allows both or either a fall in the transmission rate of said radio transmission line and/or said deviation of said radio wave(s).

17. A radio terminal equipment as claimed in Claim 1, wherein said channel controlling means restricts, in said processing procedure, the operation of composing elements unrelated to a process to be done on said radio waves received by said receiving means under said channel controlling procedure, of the composing elements which are said receiving means, said channel controlling means, and said transmission means.

18. A radio terminal equipment as claimed in Claim 2, wherein

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said channel controlling means restricts, in said processing procedure, the operation of composing elements unrelated to a process to be done on said radio waves received by said receiving means under said channel controlling procedure, of the composing elements which are said receiving means, said channel controlling means, and said transmission means.

19. A radio terminal equipment as claimed in Claim 17, wherein composing elements, which are said receiving means, said channel controlling means and said transmission means, unrelated to process to be done on said radio waves received by said receiving means under said channel controlling procedure is also unrelated to a process obtaining both or either a period suitable for said transmission system of said radio transmission line and/or a starting point of said period.

20. A radio terminal equipment as claimed in Claim 18, wherein composing elements, which are said receiving means, said channel controlling means and said transmission means, unrelated to process to be done on said radio waves received by said receiving means under said channel controlling procedure is also unrelated to a process obtaining both or either a period suitable for said transmission system of said radio transmission line and/or a starting point of said period.

21. A radio terminal equipment as claimed in Claim 1, wherein said plurality of radio waves respectively reach said radio terminal equipment sequentially and separately in said cycle, containing control information on transmitting power control, and

said channel controlling means controls the transmitting power suitable for said control information included in a specific radio wave of said plurality of radio waves reached during a preceding period, through both or either of said receiving means and/or said transmission means.

22. A radio terminal equipment as claimed in Claim 2, wherein said plurality of radio waves respectively reach said radio terminal equipment sequentially and separately in said cycle, containing control information on transmitting power control, and

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said channel controlling means controls the transmitting power suitable for said control information included in a specific radio wave of said plurality of radio waves reached during a preceding period, through both or either
5 of said receiving means and/or said transmission means.

23. A radio terminal equipment as claimed in Claim 1, wherein

said channel controlling means monitors transmission quality or field strength level of said radio wave received by said receiving means per wireless zone on the basis of zone
10 configuration and channel allocation, and performs a channel control of a wireless zone which has the highest transmission quality or field strength level.

24. A radio terminal equipment as claimed in Claim 2, wherein

said channel controlling means monitors transmission quality or field strength level of said radio wave received by said receiving means per wireless zone on the basis of zone
15 configuration and channel allocation, and performs a channel control of a wireless zone which has the highest transmission quality or field strength level.

25. A radio terminal equipment as claimed in Claim 1, further comprising a demodulating means for acquiring transmission information either by demodulating all or part of said radio waves, which are the object of the process by said channel
20 controlling means or by demodulating said radio wave(s) under predetermined weighting.

26. A radio terminal equipment as claimed in Claim 2, further comprising a demodulating means for acquiring transmission information either by demodulating all or part of said radio waves, which are the object of the process by said channel
30 controlling means or by demodulating said radio wave(s) under predetermined weighting.

27. A radio terminal equipment as claimed in Claim 1, further comprising a demodulating means for acquiring transmission information either by demodulating all or part of said
35 plurality of radio waves reached through said radio transmission line and received in parallel by said receiving means, or by demodulating said radio wave(s) under

predetermined weighting.

28. A radio terminal equipment as claimed in Claim 2, further comprising a demodulating means for acquiring transmission information either by demodulating all or part of said plurality of radio waves reached through said radio transmission line and received in parallel by said receiving means, or by demodulating said radio wave(s) under predetermined weighting.

29. A radio terminal equipment as claimed in Claim 1, wherein said channel controlling means obtains a point in time at which said transmission wave is to be transmitted to said radio transmission line, and

said transmission means transmits said transmission wave at said point in time obtained by said channel controlling means.

30. A radio terminal equipment as claimed in Claim 2, wherein said channel controlling means obtains a point in time at which said transmission wave is to be transmitted to said radio transmission line, and

said transmission means transmits said transmission wave at said point in time obtained by said channel controlling means.

31. A radio terminal equipment as claimed in Claim 29, wherein said point in time at which said transmission wave is to be transmitted to said radio transmission line fluctuates in accordance with events which can be identified by said channel controlling means in the process of said channel control, and

said channel controlling means obtains said point in time at which said transmission wave is to be transmitted in accordance with said events identified under said channel controlling procedure.

32. A radio terminal equipment as claimed in Claim 30, wherein said point in time at which said transmission wave is to be transmitted to said radio transmission line fluctuates in accordance with events which can be identified by said channel controlling means in the process of said channel

control, and
said channel controlling means obtains said point in time at
which said transmission wave is to be transmitted in accordance
with said events identified under said channel controlling
5 procedure.

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